



September 14, 2020

Aaron Jozsef
Special Projects and Project Manager
Resolve Marine Group
1510 SE 17th Street, Suite 400
Ft. Lauderdale, FL 33316

**Subject: Mayor's Point - Site Survey Plan
Pac Comm Property
1029 Bay Street
Brunswick, GA**

Dear Mr. Jozsef:

Tetra Tech is pleased to submit this Site Survey Plan to detail the approach for subsurface investigation activities at the Pac Comm Property to meet the Technical Objectives and Goals laid forth in the Statement of Work (SOW). The objectives and goals listed in the SOW include:

- Conduct a ground penetrating radar survey on the Pac Comm, Inc. property to characterize and locate potential underground fuel source(s) (i.e. underground storage tank(s) [UST]).
- Capture and document sufficient data to establish a baseline condition of the site and to inform potential future response decisions regarding the identified light non-aqueous phase liquid (LNAPL). Locating the source of the odor and fuel leak origin on the Pac Comm property is the ultimate objective of this site survey.
- Provide data to allow the United States Coast Guard (USCG) to determine the best course of action to secure/remove the source and eliminate a substantial threat of additional discharge of this product into the navigable waters of the United States.
- Construct a digital model using the survey data to best illustrate the nature and size of the source of the product odor and waterway sheen, so that future recovery and disposal of the source can be planned and executed.
- The safety of human life, including that of all survey and response personnel, shall be the highest priority for all operations.

This Site Survey Plan includes a list of key personnel tasked with collecting data during the survey, a list of hardware and software to be used during the survey for data collection and data processing, techniques to be used during the survey, and logistics for the mobilization and demobilization of resources to and from the project site.

KEY PERSONNEL

- **Aaron Jozsef, Resolve Marine – Project Manager**

Mr. Jozsef will be the primary point of contact between the USCG and field team conducting the site survey. Mr. Jozsef will be responsible for meeting the SOW “Specific Requirements a) ii. 1 through 4”. Mr. Jozsef will be available on site throughout the course of the field work.

- **John Snyder, PE PG, Tetra Tech – Field Supervisor**

Mr. Snyder will be the Tetra Tech Field Supervisor in charge of overseeing the implementation of the work plan. Mr. Snyder will direct the geophysical and drilling subcontractors in matters of scheduling, logistics, and technical details. Mr. Snyder will serve as the Site Safety Coordinator and will be responsible for collecting, processing, and submitting any soil samples collected during the survey to a laboratory.

Other Personnel:

- **Chris Draper, Tetra Tech** – Health and Safety Manager/Officer
- **Katie Wise, Tetra Tech** – Geographic Information Systems (GIS) specialist and data manager
- **GEL Geophysics, LLC (GEL)** – Geophysical subcontractor
 - Tetra Tech anticipates up to two technicians from GEL to conduct the geophysical survey
- **GeoLab Drilling (GeoLab)** – Georgia-licensed drilling subcontractor
 - Tetra Tech anticipates two drillers and a technician to conduct the Optical Image Profiling (OIP) and drilling

Equipment

Hardware:

- 500-megahertz Ground Penetrating Radar (GPR) cart-mounted unit (make/model to be determined).
- 6610DT-series track-mounted Geoprobe direct-push drill rig with tooling sufficient to investigate to a depth of 15 feet below ground surface.
- Drillers' truck
- OIP lab processing truck
- MiniRAE photoionization detector (PID)
- Global Positioning System (GPS) receiver to record boring locations
- Hand auger soil sampling kit

Software:

- OIP processing software
- ESRI GIS software suite

TECHNICAL APPROACH

Tetra Tech plans to utilize several techniques to conduct the subsurface investigation on the Pac Comm property. Those techniques include conducting a GPR survey to identify any subsurface anomalies, buried USTs and associated piping, or other potential fuel sources. OIP sensing equipment will be used to identify the presence of LNAPL in near real-time. OIP sensing equipment will be advanced using a drill rig with an approximate footprint of 94-inches long by 66-inches wide. Soil samples will be collected and submitted for

laboratory analysis to confirm LNAPL detection by the OIP equipment. Additional information for each of these techniques is provided below.

Prior to initiating field activities, Tetra Tech submitted an underground utility check by notifying GA811. On September 10, 2020, Tetra Tech notified GA811 of the planned subsurface work and ticket number 09100-530-321-000 was issued for the work. The ticket is active beginning September 15 through October 10, 2020.

GPR – GEL will survey all proposed drilling locations with a GPR unit to minimize the risk of encountering any subsurface structures while drilling. After this screening is complete, GEL will survey the accessible areas of the site with a cart-mounted GPR unit. The survey will be conducted in a grid-pattern, with transects close enough to ensure detection of any existing 5,000-gal underground storage tanks (USTs) remaining on site. Subsurface anomalies will be marked with spray paint by the GPR technicians and the depth and coordinates will be recorded by the Field Supervisor. A figure depicting the results of the GPR survey will be included in the final report.

OIP – During site preparation, the field supervisor will layout three east-to-west transects around the site: one along the Georgia Port Authority (GPA) property boundary, one along the Ocean Petroleum property boundary, and one bisecting the site (see Figure 1). Three soil borings will be placed along each transect and will include an eastern boring along the eastern property boundary, a western boring along the riverfront, and a midpoint boring. Each of these boring will be advanced into the water table (anticipated within 15 ft of land surface) to ensure that it will intersect any LNAPL layer, if present. The borehole will be approximately 2-inches in diameter. Due to the small diameter of the sensing equipment, no soil cuttings will be generated at locations where OIP sensing technology is utilized. At the two proposed soil sampling locations, a 48-inch long, 1.75-inch core will be used to retrieve the soil samples. Unused soil will be returned to the borehole. Upon completion of data collection at each boring location, hydrated bentonite chips will be used to fill open boreholes.

OIP will provide a near real-time log of induced fuel fluorescence (as an optical percentage) within the subsurface. An example OIP log is included as Attachment 1. This data (layer thickness and fluorescence percentage) can be used to build a plume model. Tetra Tech understands that locating the source of the odor and fuel leak origin on the Pac Comm property is the ultimate objective of this site survey. If a fuel source exists on the Pac Comm property, data obtained from utilizing OIP sensing technology and the GPR survey will be used to identify the source, establish a baseline condition of the site, and to shape potential future response decisions.

The results of the GPR survey and transect borings will be evaluated to determine the location of three additional borings to target possible plume sources or the lateral extent of the plume. If USTs or other potential on-site sources are identified by the geophysical subcontractor, these will get priority. If no potential on-site sources are identified, the three additional borings will be determined in the field, with FOSC input.

At the completion of the OIP borings, Tetra Tech will collect two soil samples for laboratory analysis of Oil Range Organics (ORO), Gasoline-range Organics (GRO), and Diesel-range Organics (DRO). One sample will be collected from a location in the subsurface with minimal induced fuel fluorescence, and the second sample will be collected from a location with the highest fluorescence. These samples will be used to verify OIP data and verify the presence or absence of LNAPL. Tetra Tech anticipates a turnaround time of 10 calendar days for receipt of preliminary data and 21 days for final laboratory data.

DECONTAMINATION AND HAZARDOUS WASTE DISPOSAL

The selected technologies are designed to minimize impact to the site and waste generation. The GPR survey includes up to two technicians and a cart-mounted GPR unit. GEL will conduct a dry decon of the cart wheels and base of the cart, prior to demobilizing from the site. The subsurface investigation includes the use of OIP

sensing equipment attached to drilling rods on a drill rig operated by GeoLab. The down-hole equipment will be decontaminated between boreholes to ensure contamination is not spread from one location to the next and to reduce the potential of false positives from residual contamination on the sensing equipment. Decontamination of downhole equipment will be completed as follows:

- Wash with tap water and detergent, using a brush if necessary, to remove particulate matter and surface films.
- Rinse thoroughly with tap water.
- The decon solution and rinse water will be containerized in a 55-gallon drum for later off-site disposal.
 - Tetra Tech will collect one waste sample from the drum for disposal purposes. Anticipated analysis is Toxicity Characteristic Leaching Procedure (TCLP) volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC).

Shallow, surficial aquifers tend to not be under hydrostatic pressure; therefore, Tetra Tech does not anticipate a release of fuel to the surface if a contamination zone is encountered. In the unlikely event that the surficial aquifer is under hydrostatic pressure, Tetra Tech and Resolve Marine will have oil absorbent pads, booms, and bentonite clay chips available as spill countermeasures available on site.

WORK SCHEDULE

Tetra Tech anticipates completing field activities within two days. The below subsections summarize the anticipated schedule.

Mobilization

All parties will mobilize to the site on September 21, 2020 for a site walk in the late afternoon. During the site walk, all (sub)contractors will ensure that the areas that they require access to are free of obstructions so that the investigation can proceed as planned. Tetra Tech understands that the Pac Comm property is currently leased to Weeks Marine. It will be the responsibility of Weeks Marine to move equipment so that the property can be fully accessed for the purposes of this investigation. An equipment staging area and decontamination area will be designated by the Resolve Project Manager, in consultation with the Federal On-Scene Coordinator (FOSC). This area will be available to contractors to stage equipment throughout the mobilization, including overnight.

GEL is responsible for providing all equipment, supplies, and personnel required to perform the GPR screening of boring locations and the GPR survey of the site.

GeoLab is responsible for providing all equipment, supplies, and personnel required to advance up to 12 borings into the water table using OIP logging. GeoLab is responsible for providing all supplies required to decontaminate the drill rig and tooling between boreholes.

Tetra Tech is responsible for providing all equipment, supplies, and personnel required to document site activities, record data generated, collect soil samples, characterize the waste decontamination water, arrange for pickup and disposal of the decontamination water, and provide air monitoring with a PID.

Demobilization

GEL will demobilize upon the completion of the soil boring screening and site-wide GPR survey, and when the results of these investigations have been communicated to the field supervisor. All GEL equipment and supplies will be removed from the site. Anticipated duration of the GPR survey is one day.

GeoLab will demobilize at the completion of the 12 soil borings, after full decontamination of their equipment,

and communication of the OIP findings to the field supervisor. All GeoLab equipment and supplies will be removed from the site, with the exception of any containerized decontamination water, which will be left on site for characterization and disposal.

Resolve and Tetra Tech will demobilize at the completion of the geophysical work, drilling work, and soil sampling. All Resolve/Tetra Tech equipment and supplies will be removed from the site.

Reporting

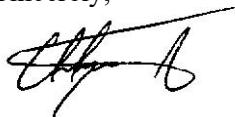
Tetra Tech will provide an assessment letter report that will describe the work conducted, documentation of field activities, the assessment results, photographs, air monitoring results, and petroleum plume. Tetra Tech anticipates submitting the draft report within 14 days after demobilizing from the site. Tetra Tech will address questions and comments provided by the FOSC and provide the final report within three business days following receipt of USCG comments. Please note that final laboratory analytical results may take up to 21 days to receive; therefore, the final report will not be submitted until after the final laboratory package is received.

Proposed Schedule of Activities

- Mobilization to the site – September 21, 2020
- Site visit, site preparation – Afternoon of September 21, 2020
- Boring location screening – Morning of September 22, 2020
- GPR survey – Morning and afternoon of September 22, 2020
- GEL demobilization – Afternoon of September 22, 2020
- OIP soil borings – September 22, 2020 through September 23, 2020
- Soil sampling – Afternoon of September 23, 2020
- GeoLab/Resolve/Tetra Tech demobilization – Morning of September 24, 2020
- Submittal of the Draft Assessment Report Due to USCG – 14 days after completion of site work or five days after receipt of preliminary laboratory analytical data, whichever comes later.
- Final Assessment Report Due to USCG – Three business days after receipt of final laboratory analytical results (final results anticipated within 21 calendar days of sample submittal date) or three business days following receipt of USCG comments, whichever comes later.

If you have any questions or comments regarding the site survey plan, please contact John Snyder at (678) 775-3085 or Christopher Jones at (678) 775-3081.

Sincerely,



Christopher Jones
Manager

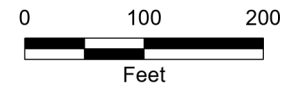
ENCLOSURE 1

Proposed Boring Location Figure

(One Page)



- Legend**
- Site (PacComm Property)
 - Ocean Petroleum
 - Georgia Port Authority
 - Previous Area of Investigation
 - Discharge Area
 - Proposed Borings



Map Source:
ESRI World Imagery Hybrid.

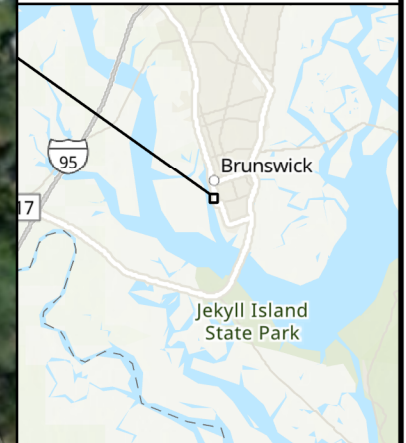


FIGURE 1

Site Layout

Site Name: Mayor's Point

City: Brunswick
County: Glynn
State: Georgia



Date:
9/14/2020
Analyst:
GREG.DOCKAL

ATTACHMENT 1

Example of Optical Image Profiling Data

(One Page)

Example of Optical Image Profiler Data

